

California Green Building Standards Code

also known as

CalGreen



PRESENTATION OBJECTIVE

- Background
- Overview of CalGreen
- Difference between CalGreen, Leed & BIG
- Implementation of Calgreen



California Green Building Initiative & Global Warming Solutions Act of 2006 (AB32)

- AB 32: Reduce GHG emissions to 1990 levels by 2020.
- Buildings are the 2nd largest contributor to GHG emissions (23.7%). (transportation is the biggest)
- EO S-20-04: Reduce grid based electricity by 20% in state-owned buildings by 2015; reduce associated greenhouse gas emissions.
- Council policy 900-14



CalGreen

- Nation's first statewide green building standards code with mandatory provisions drafted by the California Building Standards Commission (CBSC)
- Became effective January 1, 2011 (even if local agency does nothing).
- Applies to new construction, Residential (3 stories or less) and all non-residential.
- Establishes statewide minimum green building regulations.



CalGreen

- **Code Development Process:** CBSC included experts from third-party systems (LEED, Build it Green, Green Globes), building officials and construction officials, among others.



2010 California Building Standards Code – Title 24

(effective January 1, 2011)

- ☐ Part 1 - California Administrative Code
- ☐ Part 2 - California Building Code
- ☐ Part 2.5 California Residential Code
- ☐ Part 3 - California Electrical Code
- ☐ Part 4 - California Mechanical Code
- ☐ Part 5 - California Plumbing Code
- ☐ Part 6 - California Energy Code
- ☐ *Part 7 - Vacant*
- ☐ Part 8 - California Historical Building Code
- ☐ Part 9 - California Fire Code
- ☐ Part 10 - California Existing Building Code
- ☐ **Part 11 - California Green Building Standards Code**
- ☐ Part 12 - California Referenced Standards Code



Adopting State Agencies

- California Building Standards Commission (CBSC)
- The Department of Housing and Community Development (HCD)
- Division of the State Architect (DSA)
- Office of Statewide Health Planning and Development (OSHPD)



Local Authority and CalGreen General Principles

- Less strict local standards are preempted
- Local agency may amend CalGreen standards if certain findings are made.
- (The City of San Diego is not proposing any amendments to CalGreen)



Purpose of green building regulations:

- **Energy Conservation**
- **Resource Conservation (ex. Water)**
- **Greenhouse Gas Reduction**
- **Other Environmental and Health Benefits**



Planning and design

Residential (Ch. 4.1)

- Storm water pollution prevention for projects < 1acre, three management options:
 - 1) Retention basin sized and shown on site plan
 - 2) Filtering storm water and routing to a public drainage system
 - 3) Compliance with local storm water ordinance
- Manage surface drainage through use of swales etc.



Planning and design

Commercial (Ch. 5.1)

- Stormwater pollution prevention for projects < 1 acre must conform to NPDES permit or local ordinance.
- Bicycle parking (5% of visitor or total parking capacity)
- Designated parking for low emitting, fuel efficient and carpool/van pool vehicles.
- Light pollution reduction through shielding



Energy Efficiency

Residential and Commercial (Ch. 4.2, 5.2)

- Default to California Energy Commission energy efficiency standards.
- California Code of Regulations Title 24, Part 6



Water Efficiency and Conservation

Residential and Commercial (Ch. 4.3, 5.3)

- Indoor: 20% reduction in indoor water use through prescriptive and performance standards.
(Note: effective date is July 1, 2011)
- Outdoor: weather or soil moisture controlled irrigators
- Commercial Regulations also Require Separate Water Meters



Material Conservation and Resource Efficiency

Residential and Commercial (Ch. 4.4, 5.4)

- 50% reduction in non hazardous construction and demolition debris through waste management plan
- *or compliance with a local waste management ordinance (whichever is stricter)*



Environmental Quality

Residential and Commercial

Indoor air quality and ventilation

- Commercial: building ventilation, CO2 monitoring
- Residential: bathroom exhaust fans

Pollutant control

- VOC limits for sealants, adhesives, aerosols and paints
- Formaldehyde limits for composite wood products
- Only Commercial
- Environmental tobacco smoke control - no smoking within 25 feet of outdoor air intakes



Voluntary Standards Tier 1, 2

- Meet all Mandatory Requirements;
- Exceed 2008 CEC Energy Efficiency Standards by 15% (Tier 1) or 30% (Tier 2); *and*
- Meet Additional Voluntary Measures in Each of the Five Categories.
- The City of San Diego is proposing an incentive program to encourage compliance with Tiers 1 & 2



Existing Green Building Regulations

Build It Green (BIG)

- Applies to homes – new and existing
- Points available by categories
- Some minimum requirements
- Green Point Rated – 50 or more points
- CA based and reflects Title 24 requirements
- Discussion of integrating CalGreen with BIG



Existing Green Building Regulations

LEED

- Mostly used for commercial buildings
- Available for homes and neighborhood development
- New construction and existing buildings
- Point system based on options under categories
- Different levels of certification – Certified, Silver, Gold, Platinum



Comparison between Leed and CalGreen

- CalGreen Mandatory only 13-17 LEED points (below certified)
- Cal Green voluntary Tier II will give enough points to be just below LEED silver.
- (Leed silver will not ensure compliance with all CalGreen measures)



Implementation

- Developed matrices to determine which review and inspection discipline will be responsible for enforcing CalGreen measures.
- Developed a compliance method for each required measure.
- Determines any additional time required for enforcement.



Development Services Department Division of Building, Construction and Safety

Implementation

residential mandatoryrequirementsDec20.xlsx - Microsoft Excel

Home

Insert

Page Layout

Formulas

Data

Review

View

Normal

Page Layout

Page Break Preview

Custom Views

Full Screen

Workbook Views

Show/Hide

Zoom

100%

Zoom to Selection

Zoom

New Window

Arrange All

Freeze Panes

Window

Save Workspace

Switch Windows

Macros

A2

fx

TRAINING

- Conducted staff training on CalGreen.
- Participated in workshops with industry. (More workshops are planned)
- Have been working very closely with CCDC on the implementation of their incentive program.

